stance in the heart of the Rabbit. The heart of the Monotremata presents differences of some importance from those of other Mammalia; the modern knowledge of the Monotrematous heart is mainly due to Gegenbaur[1] and Lankester,[2] in whose memoirs references to the older literature will be found. The principal features of interest in which the heart of the Monotremata differs from that of the higher Mammalia are these. When the two ventricles are cut across transversely, the cavity of the right is seen to be wrapped round that of the left in a fashion precisely like that of the bird's heart; on the other hand in the higher mammal the two cavities lie side by side. The main difference "between Monotremes and other Mammals concerns the right auriculo - ventricular valve. The differences which it presents from the corresponding structure of the rest of the Mammalia are two : in the first place, the valve itself does not completely surround the ostium; it is only developed 011 one side; the septal half *(i.e.* that turned towards the interventricular septum) is either entirely absent or more generally represented by a small bit of membrane; nevertheless I found[3] recently in an *OrnitJiOThynchus* heart a complete septal half to the right auriculo-ventricular valve. The second point of interest in connexion with this valve is, that the musculi papillares instead of ending in chordae tendineae attached to the free edge of the val,r 4?.re directly attached to the valve, and in some cases pass through its membranous flap, to be attached to its origin at the boundary of the auricle and of the ventricle. The invading of the valve-flap by muscle in this way is highly interesting, as it recalls the heart of the bird and of the crocodile. Tho imperfect condition of the valve (from which, as has already been etated, the septal half is as a rule nearly absent) is a point of resemblance to the heart of the bird; the corresponding valve of the crocodile's heart being complete.

There are also features in the system of arteries and veins which are eminently distinctive of mammals. In the first place,

the aorta leaving the heart and conveying blood to the body is only a half arch, and bends to the left side as seen in Fig. 43. The right arid left halves are present in reptiles, and meet "behind the heart. In the "bird the right liulf alone

[1] ***Jen. Z&faxtor.*** **ii. 1866, p, 365.**

[8] ***JProc. Moot* Sec.*** **1888, p. 8.** [a] **Proc. *Zo&l. &<K.* 1891, p. 715.**